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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,526	02/21/2002	Henry L. Sterchi	723-1259	3040

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EXAMINER	
PAPPAS, PETER	

ART UNIT	PAPER NUMBER
2671	

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/078,526	STERCHI ET AL.	
	Examiner	Art Unit	
	Peter-Anthony Pappas	2671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ventrella et al. (U.S. Patent No. 6, 545, 682), in view of Bickmore et al. (Pub. No. US 2003/0206170 A1).

3. In regards to claim 1 Ventrella et al. teaches a method and apparatus for creating and animating a user-controlled avatar in a virtual environment (column 2, lines 63-64; column 7, lines 60-62; column 9, lines 32-45) in real time (column 10, lines 7-11), wherein said avatar interacts with various stimuli (tags), within said virtual environment, when said stimuli occurs close (in proximity) to said avatar (column 19, lines 40-59; column 18, lines 13-34). Ventrella et al. fails to explicitly teach assigning tag information to said tag.

Bickmore et al. teaches defining an object (tag) and assigning avatar reference properties (tag information) to said object, wherein said reference properties designates a type of reaction (defined behavior) for an avatar (character) when, for example, it is dragged over (in proximity to) said object (page 5, ¶s 61-64; page 6, ¶ 69). Said avatar can be animated using a scripted animation sequence (i.e. stored in an avatar script file 520), as defined by user input (page 4, ¶s 50-53).

When said avatar is dragged over an object (within predetermined proximity to a tag) the location of said object and said avatar reference properties are used to modify the animation of said avatar at run-time (page 6, ¶ 69; page 3, ¶ 42; page 5, ¶ 66). It is noted that modifying said animation at run-time is considered to result in real-time animation.

It would have been obvious to one skilled in the art, at the time of the applicant's invention, to incorporate the assignment of tag information to tags, as taught by Bickmore et al., into the method taught Ventrella et al., because Ventrella et al. teaches that stimuli can be prioritized using any reasonable criteria (column 19, lines 21-58) and thus by having a priority value directly assigned to a given stimuli, wherein said assignment is calculated in respect to the priority assignments assigned to respective stimuli of the same virtual environment, it would allow for a more realistic interaction between said stimuli and an avatar, as a given stimuli would be able to override (via a set priority value) any other concurrently running stimuli imparting a weight to the significance of a given stimuli. For example, consider a virtual environment wherein a given avatar is placed within the boundaries of a burning forest. Such a scene would warrant careful consideration of the prioritization of stimuli in said virtual environment so that the stimuli representing the burning forest would take immediate priority over all other stimuli concurrently running in said virtual environment and ideally behoove said avatar to act accordingly and attempt to escape impending harm, regardless of any other surrounding stimuli and their respective priority settings.

4. In regards to claim 2 Ventrella et al. fails to explicitly teach detecting when the characters is no longer within the predetermined proximity to the tag and upon such detection, retuning to the scripted animation for the character. Bickmore et al. teaches detecting when said avatar is no longer over an object (DRAG_NOHANDLE is enabled) and upon such detection returns to the scripted animation (i.e. idle behavior, etc.) for the character (page 5, ¶ 59; page 6, ¶ 69).

5. In regards to claim 3 Ventrella et al. teaches that the blending of animation scripts, at each frame of the output script, can be accomplished by computing a feature as a weighted function of said feature in the corresponding frames of each of the input scripts (column 10, lines 11-21). It is noted that the process disclosed above is considered key framing and that in computer implementations of keyframing the process known as tweening, inbetweening and/or in-betweening is considered a component thereof.

Ventrella et al. teaches that skeletal bone rotations are determined by various sources and then modified, if appropriate, by the Inverse Kinematics (IK) module in the animation system (column 11, lines 6-9).

6. In regards to claim 4 Ventrella et al. teaches defining human-like reaction (based on personality traits) as the type of reaction and generating an animation that corresponds to said human-like reaction (column 5, lines 61-64; column 3, lines 23-25; columns 17-18, lines 32-67 and 1-34, respectively).

7. In regards to claim 5 Ventrella et al. teaches that the head of the avatar may be turned, for example, in response to a control input from the user or in response to some

other stimuli that is independent of the user (column 18, lines 13-34). It is noted said animation is considered to be executed in real-time.

8. In regards to claim 6 Ventrella et al. teaches a plurality of tags at different locations in a virtual world (column 19, lines 21-34). Ventrella et al. fails to explicitly teach assigning tag information to each tag, wherein each tag causes a different dynamic animation sequence to be generated for the character when within a predetermined proximity thereto. The rationale disclosed in the rejection of claim 1 is incorporated herein (Bickmore et al., page 6, ¶ 69).

9. In regards to claim 7 the rationale disclosed in the rejection of claims 2 and 6 are incorporated herein. Ventrella et al. teaches the curiosity gene determines the tendency of the avatar to look, automatically toward a low-priority stimulus in the absence of a high-priority stimulus (column 19, lines 20-34). Ventrella et al. fails to explicitly teach assigning a priority value to each tag. The rationale disclosed in the rejection of claim 1 is incorporated herein.

10. In regards to claim 8 the rationale provided in the rejection of claim 2 is incorporated herein.

11. In regards to claim 9 the rationale provided in the rejection of claim 3 is incorporated herein.

12. In regards to claim 10 the rationale provided in the rejection of claim 4 is incorporated herein.

13. In regards to claim 11 the rationale provided in the rejection of claim 5 is incorporated herein.

14. In regards to claim 12 the rationale disclosed in the rejection of claim 1 is incorporated herein.

15. In regards to claim 13 the rationale disclosed in the rejection of claim 7 is incorporated herein.

16. In regards to claim 14 the rationale provided in the rejection of claim 3 is incorporated herein.

17. In regards to claim 15 the rationale provided in the rejection of claim 4 is incorporated herein.

18. In regards to claim 16 the rationale provided in the rejection of claim 5 is incorporated herein.

Response to Amendment

19. Both the specification and claim objections are withdrawn in view of applicant's amendment.

20. In response to the applicant's argument that Ventrella et al. does not teach the feature of defining a tag at a location in a virtual environment it is noted that a stimuli which exists at a given location in a virtual environment, as shown by Ventrella et al. (i.e. a cat walking slowly by an avatar; column 19, lines 26-27), is considered a tag. Additionally, Ventrella et al. teaches situations in which a plurality of stimuli can coexist and factor into the reaction of a given avatar (columns 19-20, lines 59-67 and 1-5, respectively).

21. In response to the applicant's argument that Ventrella et al. does not teach of generating a dynamic animation sequence for the character when the character is within

a predetermined virtual proximity to the tag Ventrella et al. teaches animating said avatar in response to a certain types of stimuli or lack of stimuli, accordingly (column 17, lines 49-52; column 19, lines 40-59).

22. In response to the applicant's argument that Ventrella et al. does not teach assigning tag information (i.e. priority information) to a tag or tags at a location or locations in the virtual environment, wherein said information is also used to animate an avatar, the prior art reference Ventrella et al. has been replaced with Ventrella et al. in view of Bickmore et al., wherein Bickmore et al. teaches the limitations argued, and therefore said arguments are considered moot.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Handelman et al. (U.S. Patent No. 6, 191, 798). Handelman et al. teaches that is known to use to use inverse kinematics together with keyframing for computer animation. Brush, II et al. (U.S. Patent No. 6, 366, 285 B1). Brush, II et al. teaches selecting objects in a virtual world through the use of inner and outer selection ranges.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter-Anthony Pappas whose telephone number is 703-305-8984. The examiner can normally be reached on M-F 9:30am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 703-305-9798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter-Anthony Pappas
Examiner
Art Unit 2671

PAP

MARK ZIMMERMAN
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